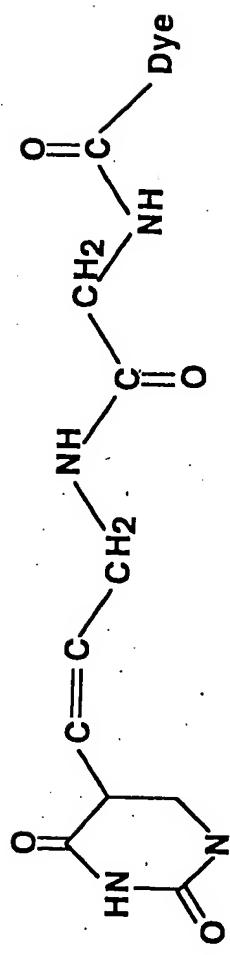


Diglycyl linker



Tetraglycyl linker

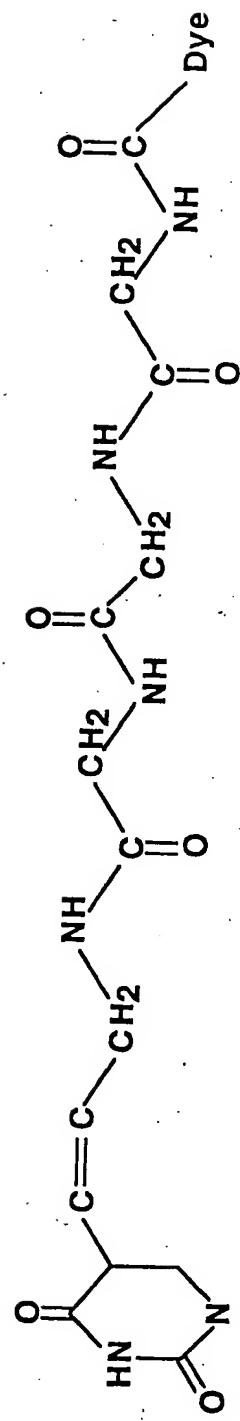
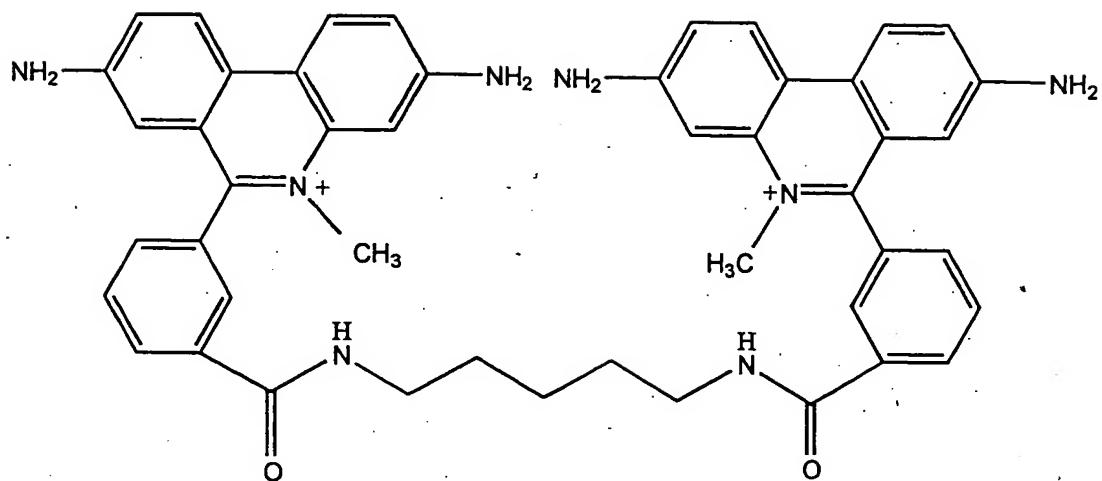
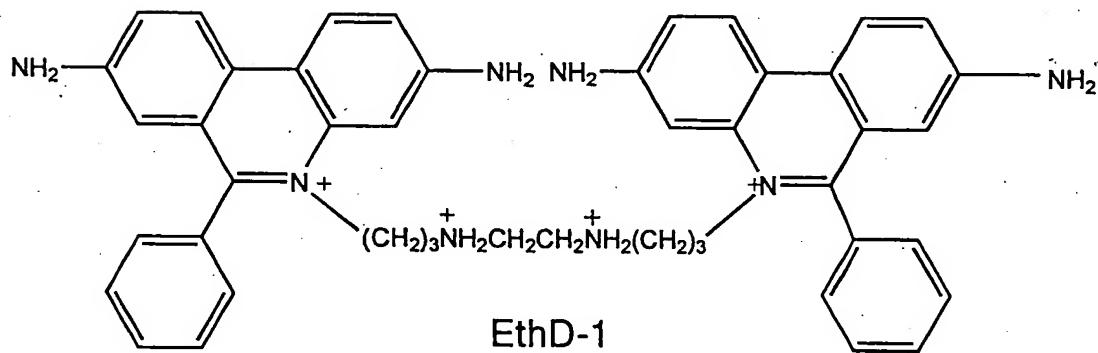


Figure 1



meta-EthD



EthD-1

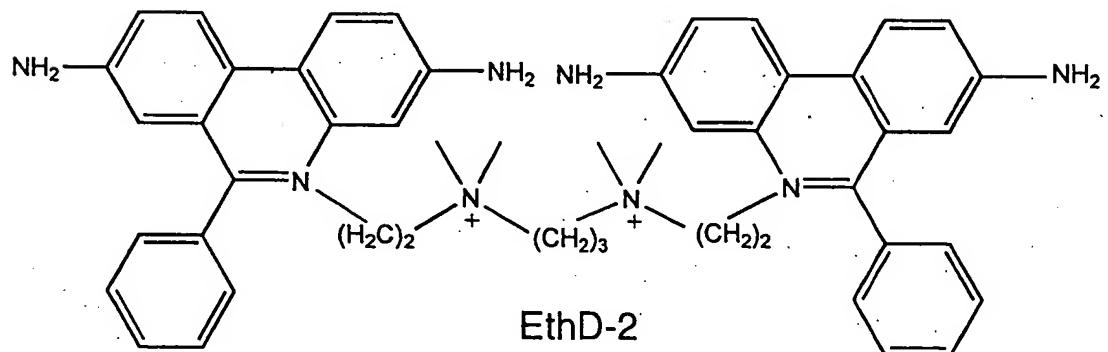


Figure 2

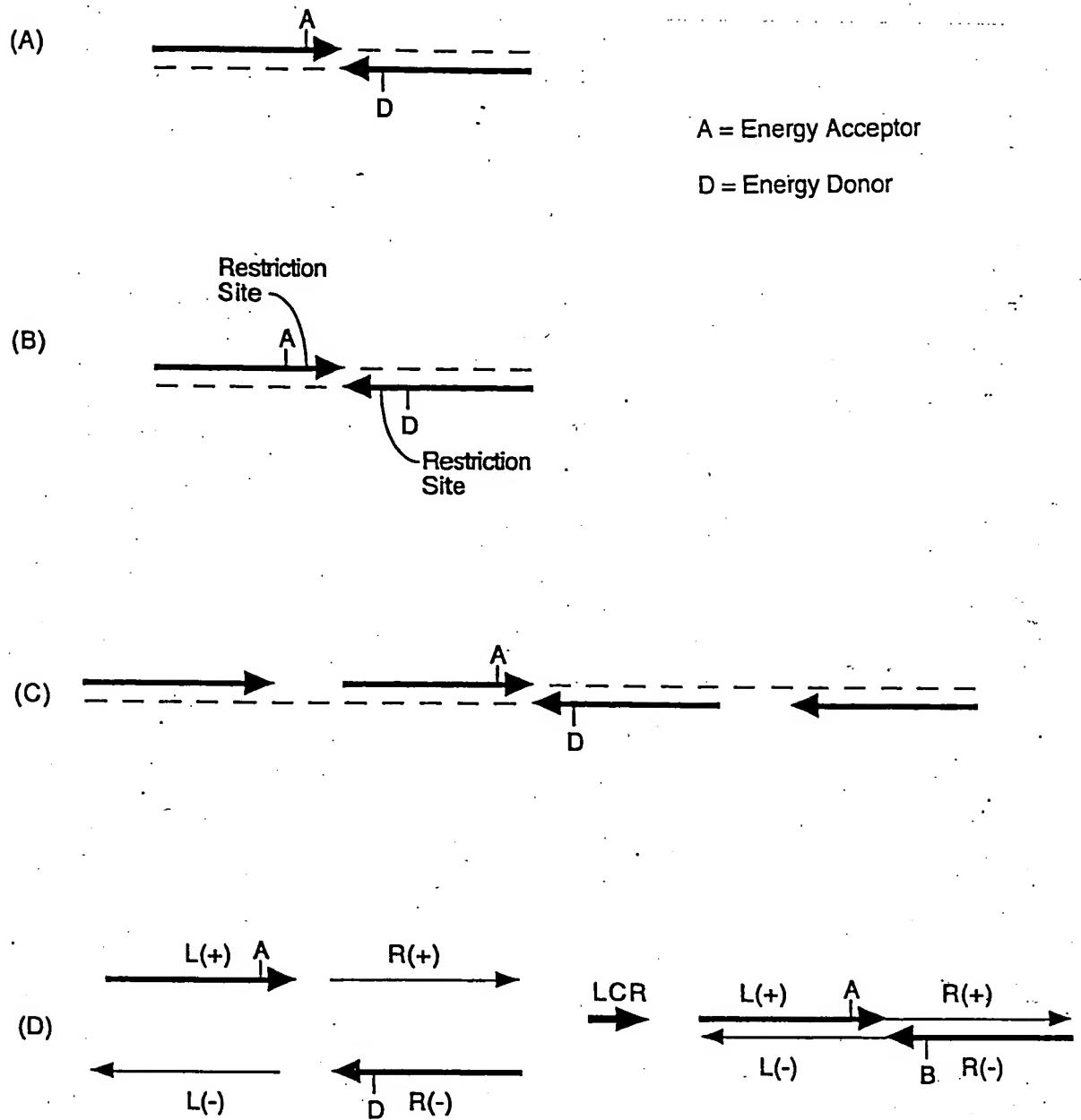


Figure 3

Target Sequence

— GCGACCTGCGAATGCTATGGATCAGGCTAGCCA —
— CGCTGGACGCTTACGATAACCTAGTCCGATCGGT —

(A)

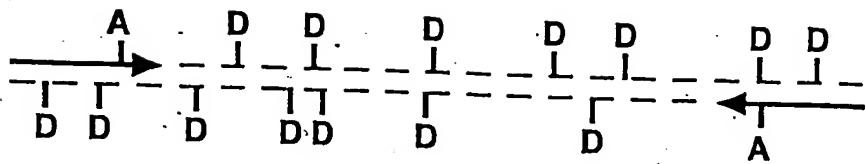
Donor →
GCGACCTGCGAATGCTATggatcaggctagcca
cgctggacgcttacgataCCTAGTCCGATCGGT
← Acceptor

(B)

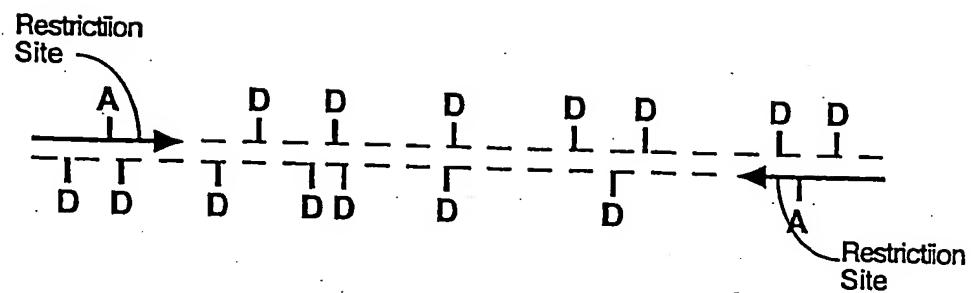
Donor →
GCGACCTGCGAATGCTATggatcaggctagcca
cgctggacgcttacgataacctAGTCCGATCGGT
← Acceptor

Figure 4

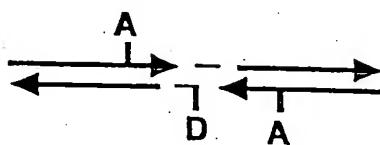
(A) PCR



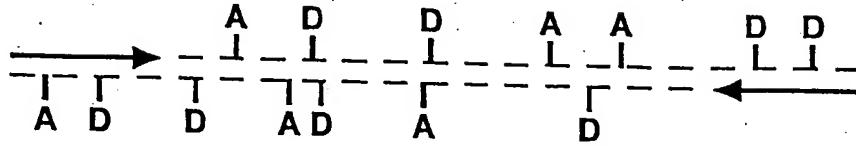
(B) SDA



(C) GAP-LCR



(D) PCR

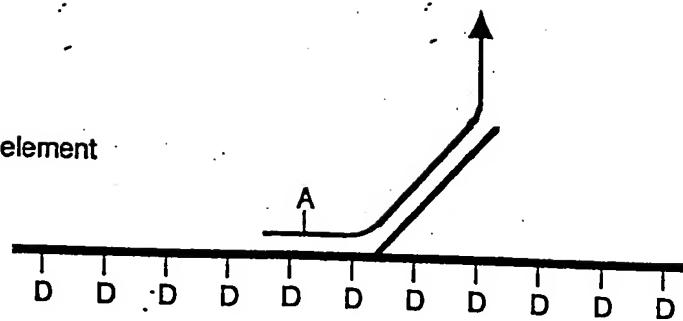


A = Energy Acceptor

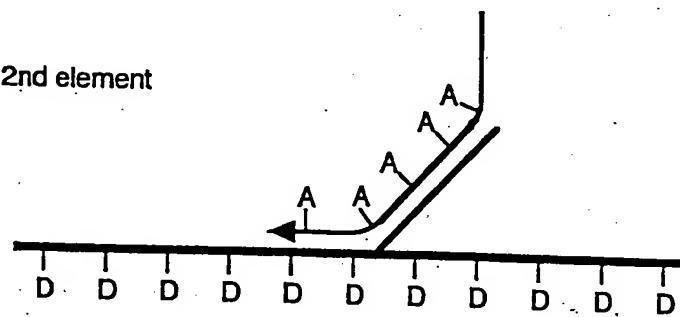
Figure 5

D = Energy Donor

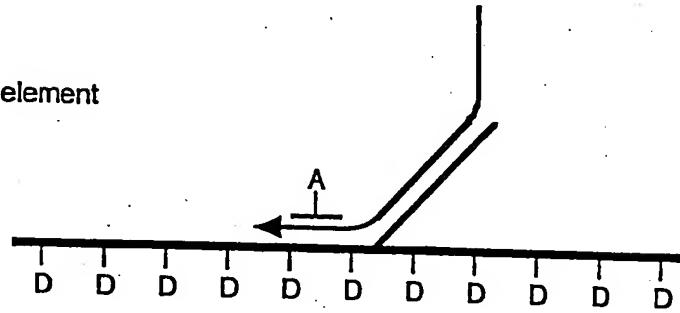
(A) Primer with 2nd element



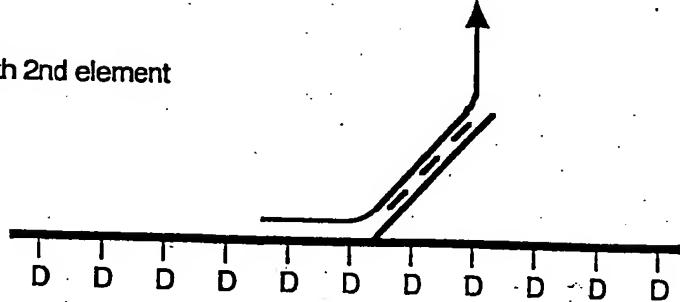
(B) Nucleotide with 2nd element



(B) Probe with 2nd element



(B) Intercalators with 2nd element



D = Energy Donor

A = Energy Acceptor

Figure 6

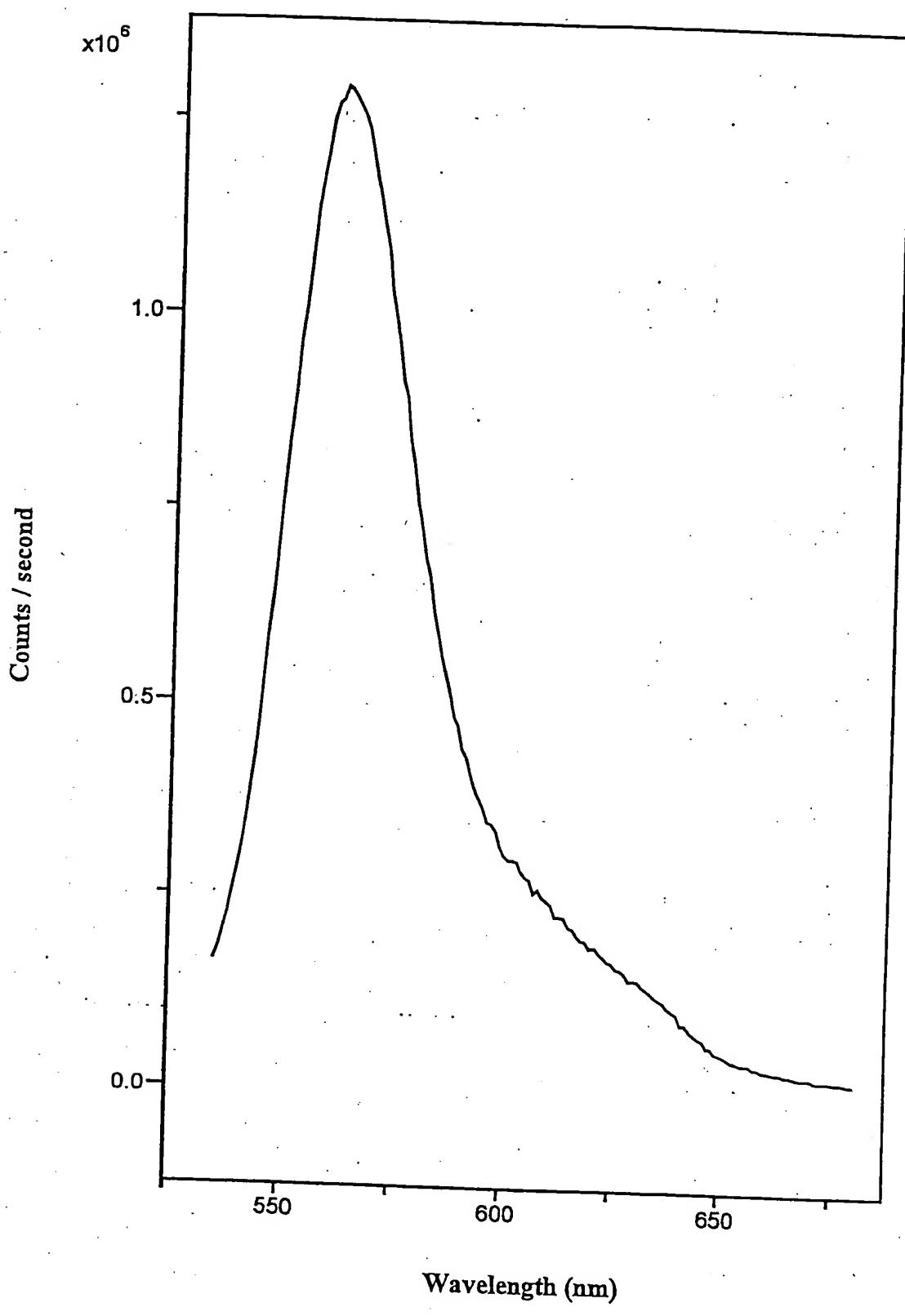


Figure 7

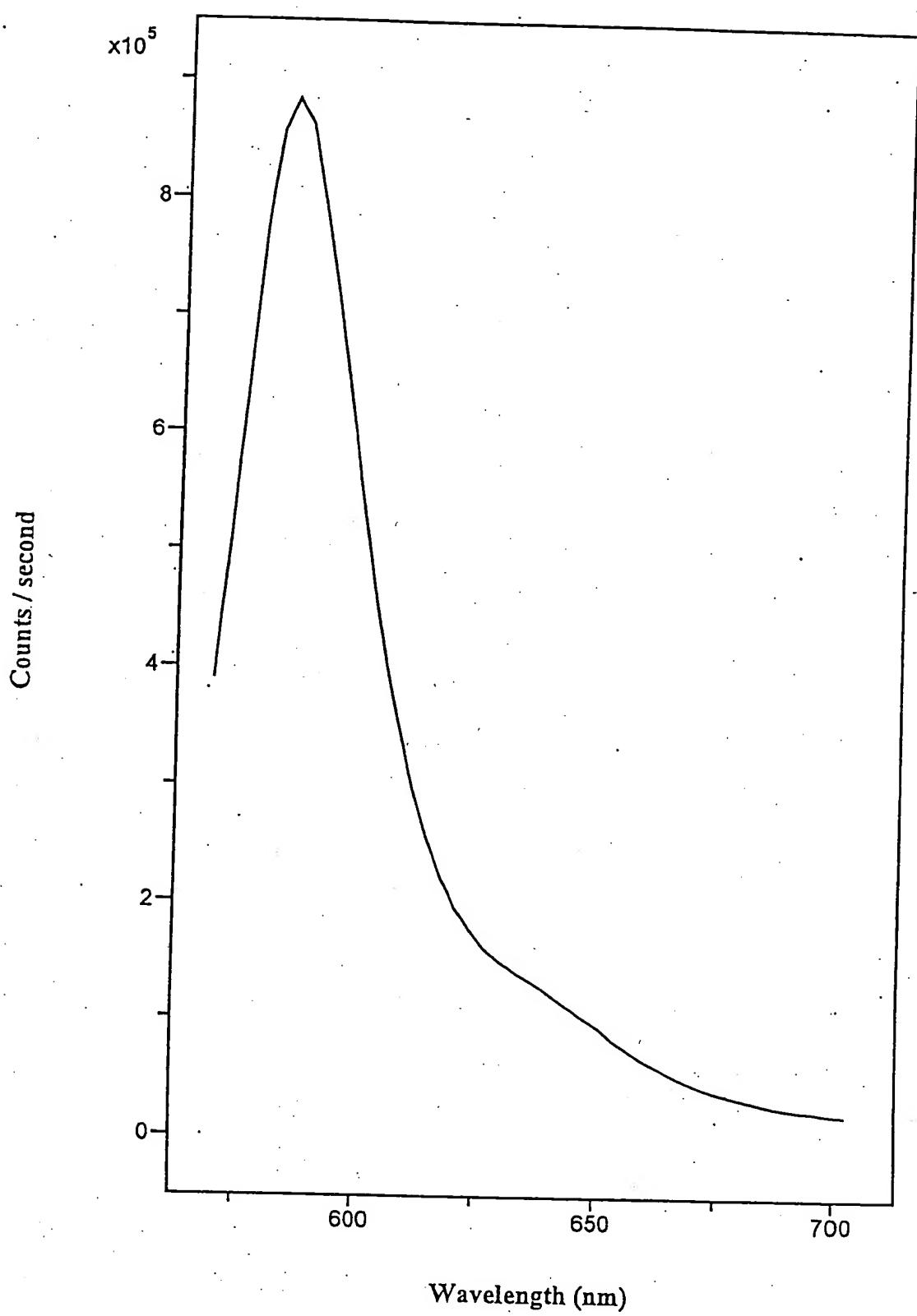


Figure 8

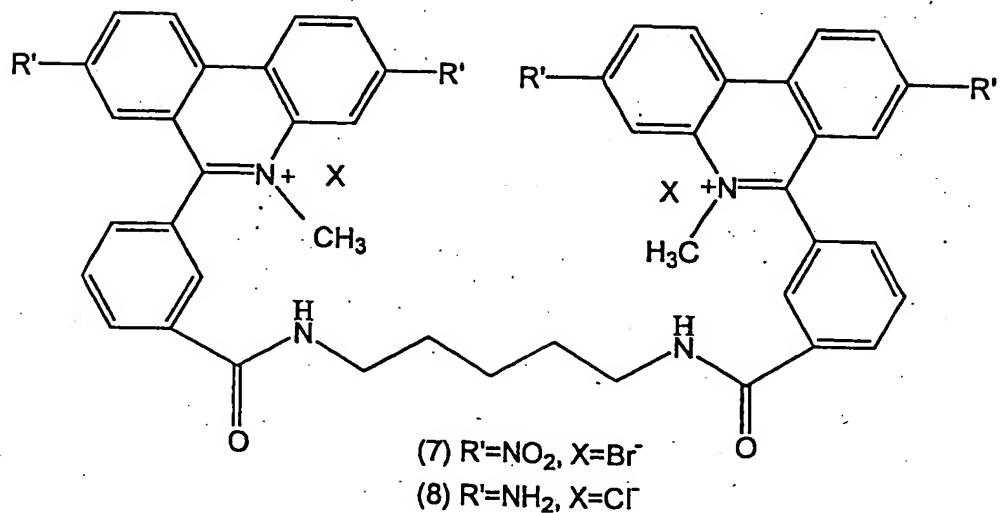
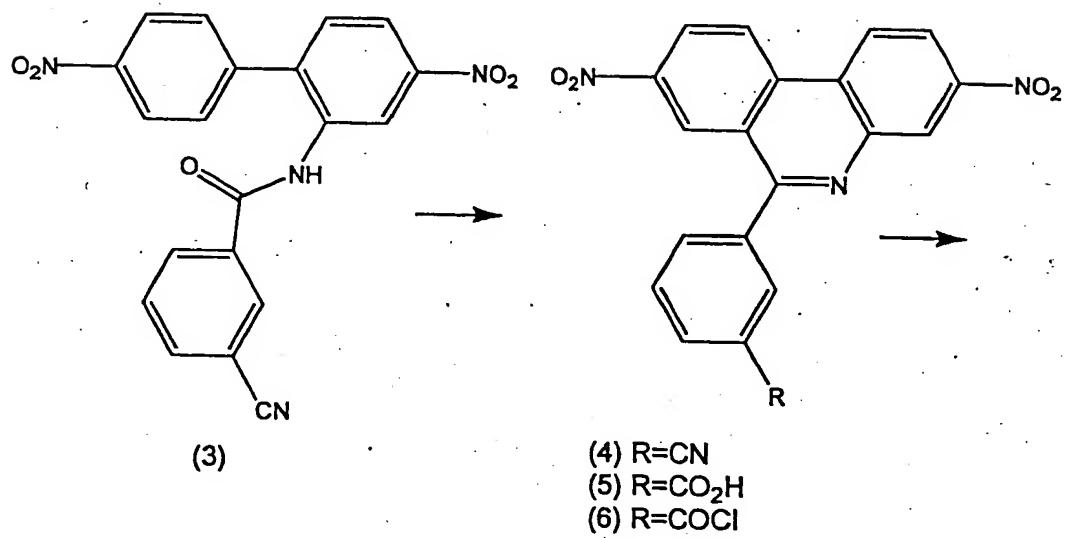
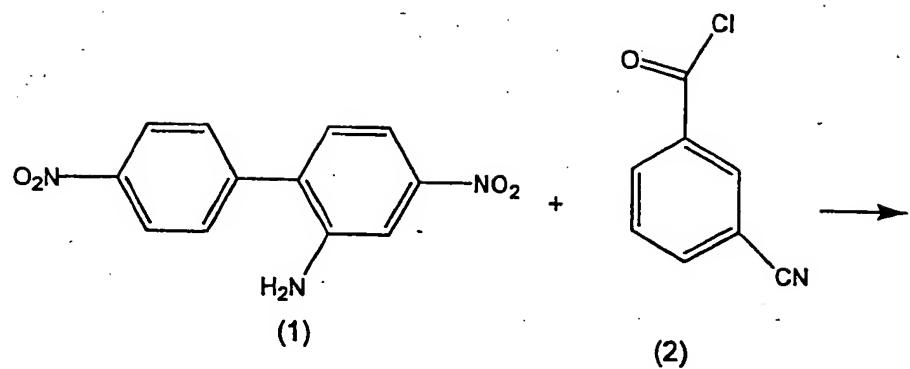
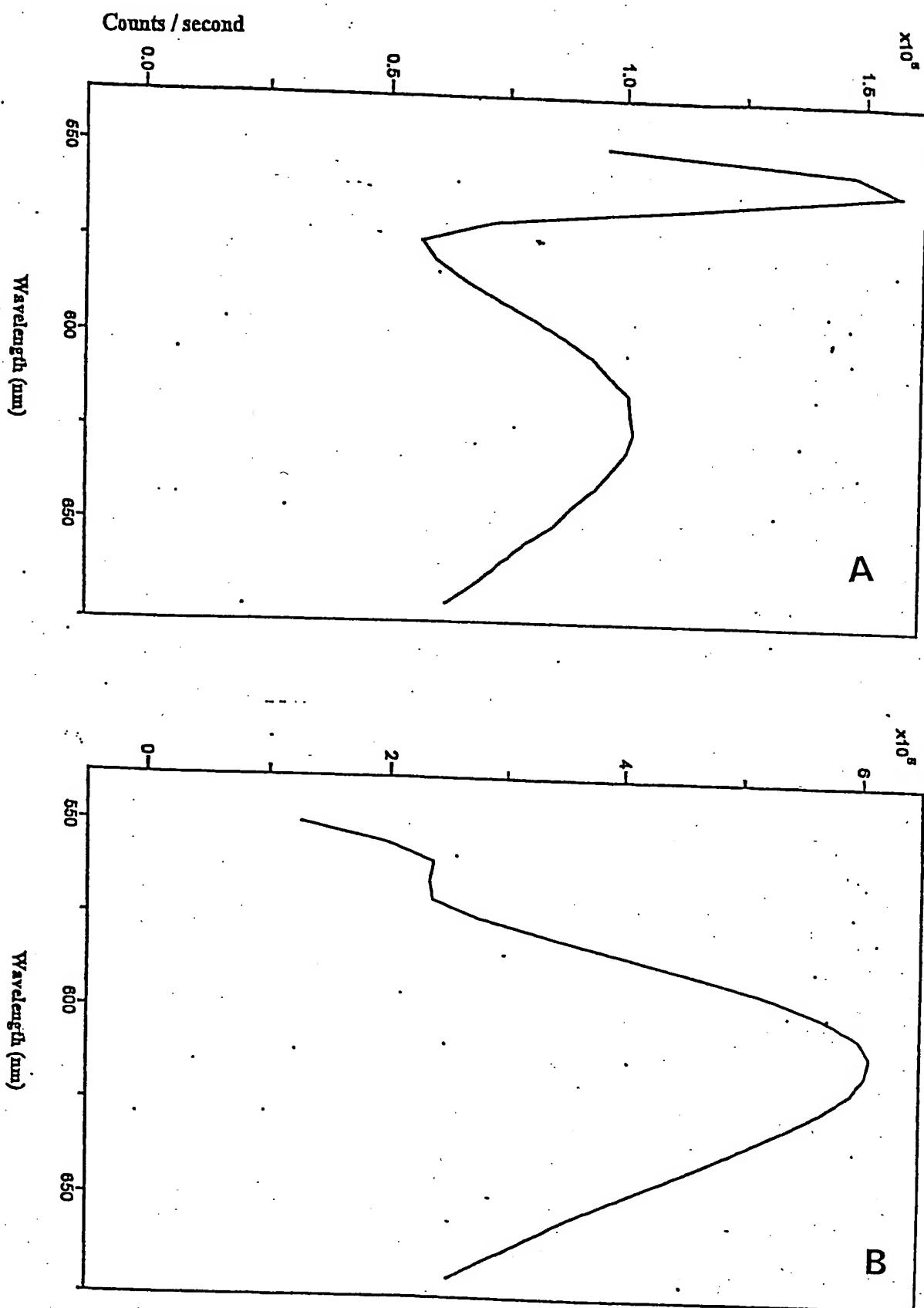
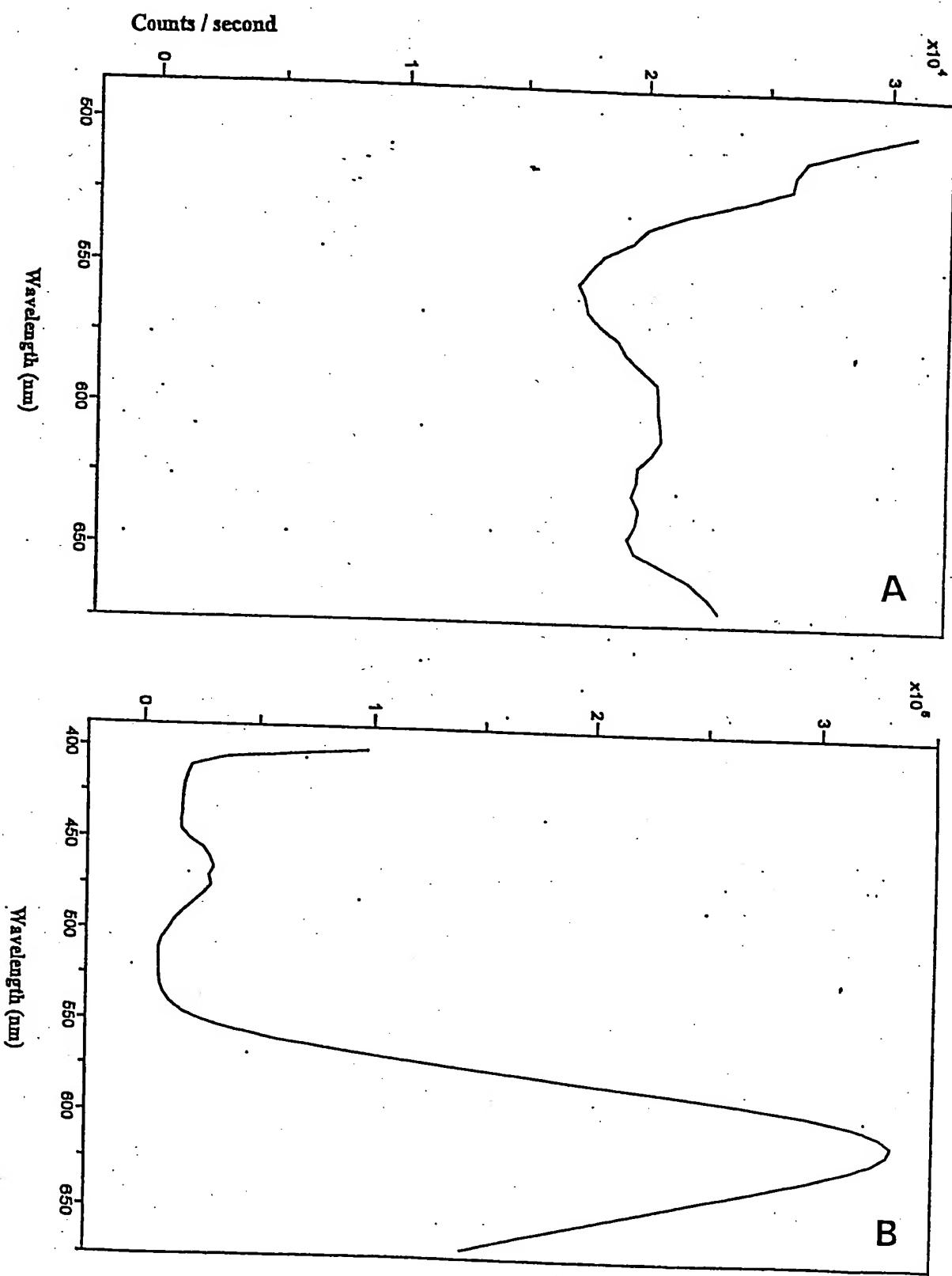


Figure 9



Illumination at 472 nm
Figure 10



Illumination at 350 nm

Figure 11

HIV Anti-sense Amplicon

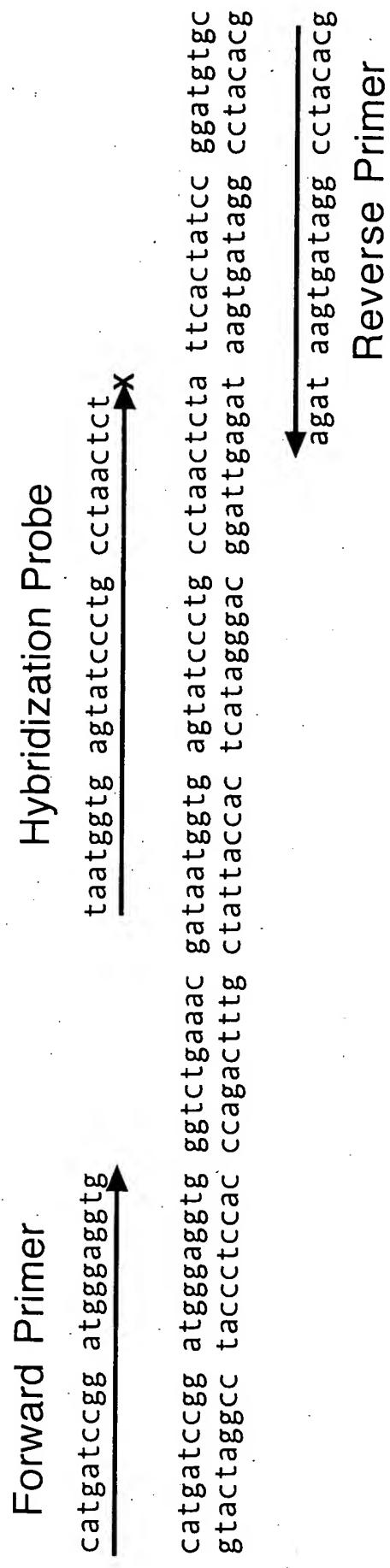


Figure 12

A) Binding of CNAC to poly A tail

B) elimination of poly A segment by RNase H

RNase H

U = Uridine (ribonucleotide)

T = Thymidine (deoxyribonucleotide)

Q = Inosine (ribonucleotide)

mRNA

—————AAAAAAA-3'

CNAC

C) Incorporation of primer binding site by template dependent extension of analyte

Rerverse Transcriptase

mRNA

CNAC

D) Removal of CNAC and binding of primer with promoter sequence

mRNA

GGGGGGGG-promoter-5'

————— AAAAAAAAAAAAAAAAACCCCCCCC-3'

Figure 13

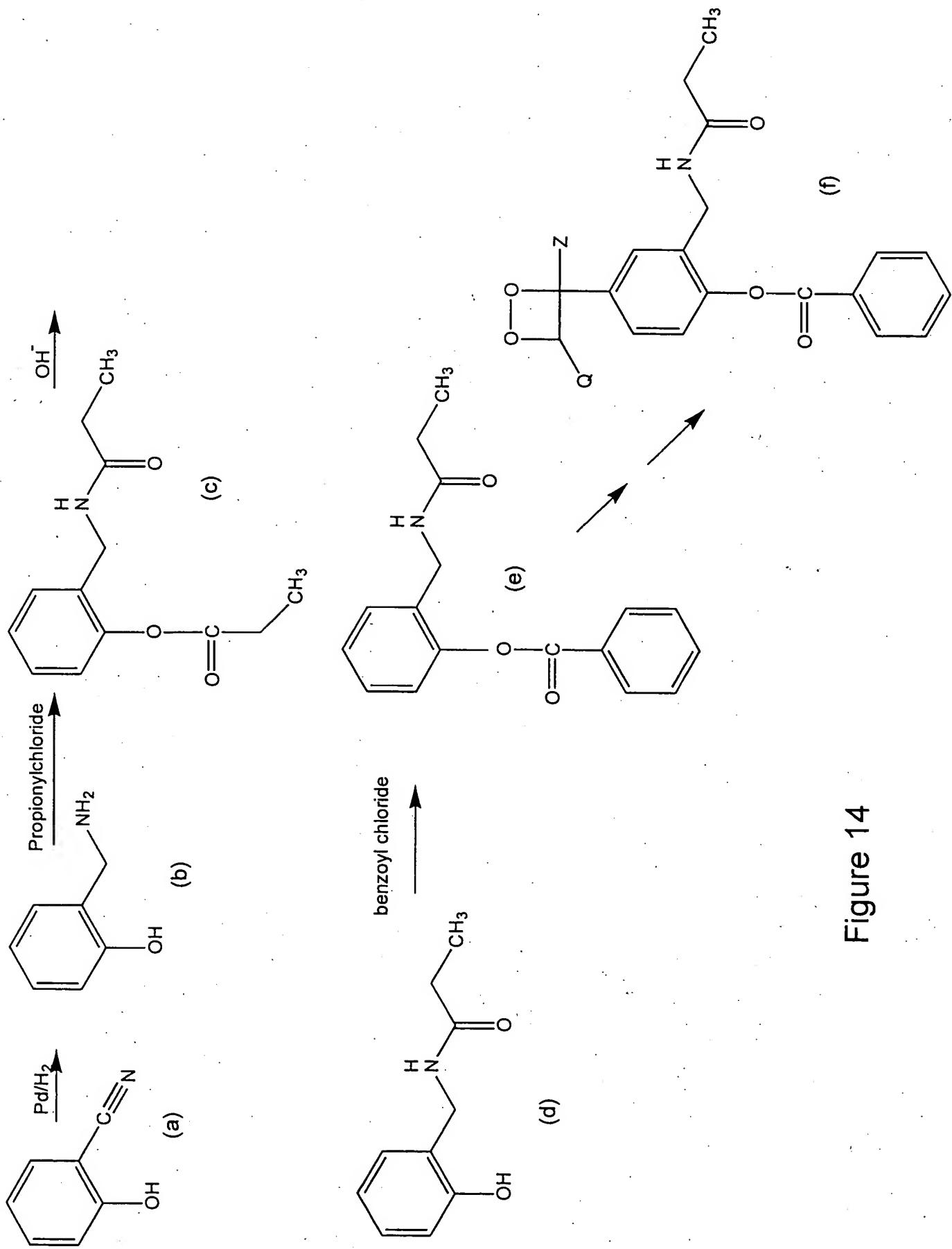


Figure 14

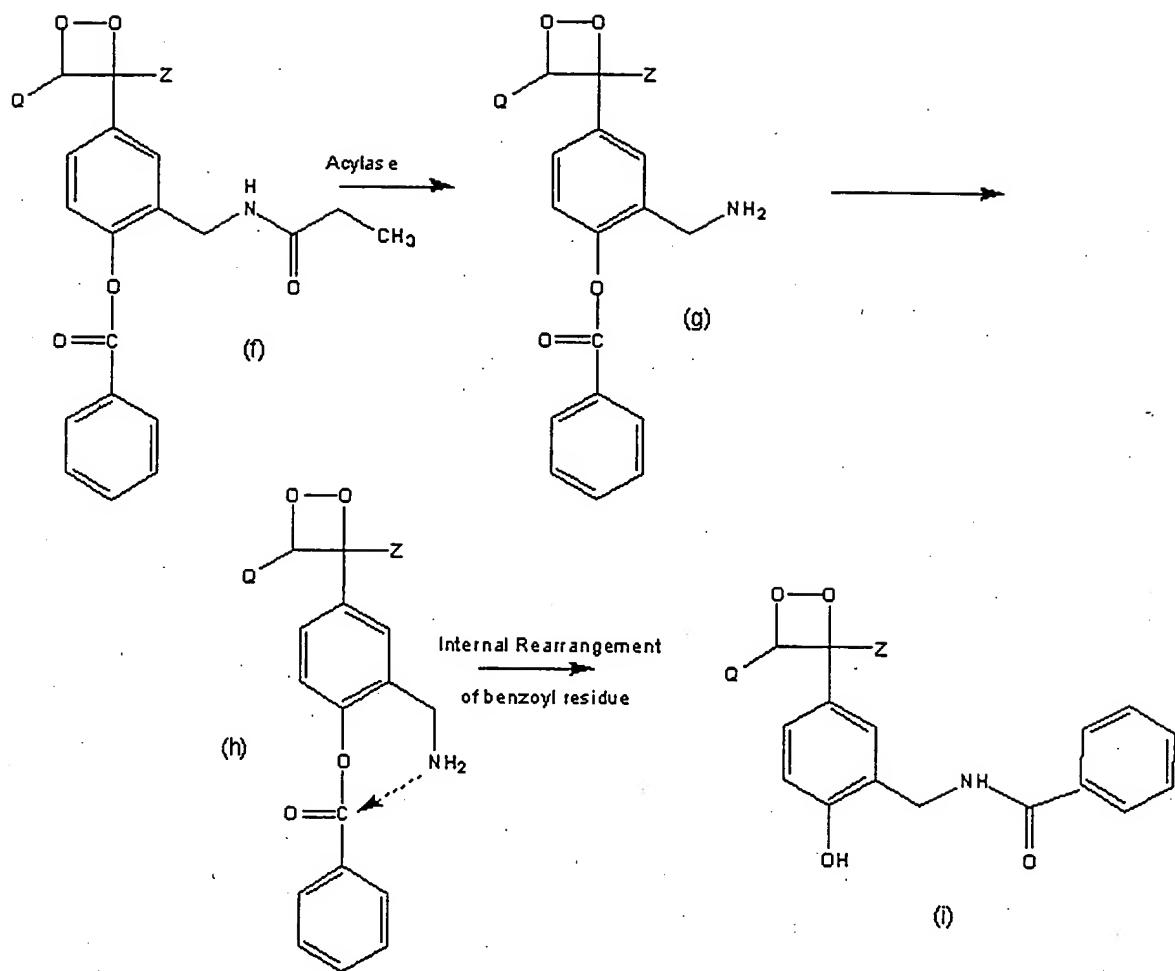


Figure 15